

# Technical Reclamation Memorandum

## TRM #16

Date: April 10, 1984

From: Robert E. Nickel, Director  
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Subject: Design of Sediment Ponds to Meet  
the Settleable Solids Effluent  
Limitation



Kentucky Department for  
Surface Mining Reclamation  
and Enforcement

The Department continues to receive a few questions concerning sediment ponds and effluent limitations. This TRM is intended to clarify Department policy concerning methods for designing sedimentation ponds to meet the settleable solids effluent limitation.

The Department has previously identified several acceptable methods for designing ponds to meet the settleable solids effluent limitation, and these methods continue to be acceptable. However, the engineer is not limited to these methods alone. An engineer may desire to design one or more ponds in a particular permit application using methods which have not previously been recommended or approved by the Department. Any sediment pond design included in a permit application will be reviewed on its merits on a case-by-case basis. The pond design must be sufficient to demonstrate to the satisfaction of the Department that the pond can reasonably be expected to meet the settleable solids effluent limitation ("compliance demonstration").

All pond designs which do not use a previously approved method must include: (1) the appropriate engineering drawings and certifications; (2) the method or basis of design used; (3) supporting analytical data, if available; (4) all relevant engineering calculations; and (5) a narrative discussion of the method or basis of design, to support the engineer's belief that the pond can reasonably be expected to meet the effluent limitation. The narrative discussion should be based upon the the engineer's best professional judgment and related experience together with accepted engineering practices and recognized professional standards. Engineering drawings that only establish the size and configuration of the pond are considered the products of design and do not, by themselves, provide sufficient information to demonstrate that a pond can meet the settleable solids effluent limitation.

In summary, the department will give full case-by-case consideration to sediment pond designs which are adequately documented in the permit application. The Department will approve sediment ponds if the design documentation in the permit application demonstrates to the satisfaction of the Department that the pond can reasonably be expected to meet the settleable solids effluent limitation. Approval of a particular pond design in a permit application is not to be considered as a general approval of that method for all situations. An engineer desiring to obtain general approval of a design method (as opposed to obtaining approval of a particular sediment pond in a permit application) should submit the method to the Department using the procedure outlined in TRM #13.

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